

From: [Liccardo, Sam](#)
To: [Mossing, Mackenzie](#)
Subject: PRA: machine learning - 05
Date: Thursday, September 12, 2019 4:41:28 PM
Attachments: [PSFSS Committee March 15 Notes.docx](#)

From: Tsai, Henry <Henry.Tsai@sanjoseca.gov>
Sent: Wednesday, March 14, 2018 4:51 PM
To: Liccardo, Sam <sam.liccardo@sanjoseca.gov>
Cc: Santosham, Shireen <Shireen.Santosham@sanjoseca.gov>
Subject: Smart City notes for PSFSS committee meeting – March 15

Hi Sam,

Here are notes (pasted and attached) for the smart city section of the PSFSS committee meeting tomorrow. Shireen and I haven't been close to these projects since Paul is leading, but he's out of office. If we get more details from him, we'll update the notes.

Henry

PSFSS Committee Notes – March 15 meeting

***** Thank you to: Ed Garcia, Robert Sapien, Ray Riordan**

I. Data Analytics

*****Great that we are completing these projects. How are we measuring efficiency and productivity gains? Any results you can share?**

***** What was the original timeline for implementation?**

In 2014, PD released a Crime and Mobile Predictive Analytics Software Suite RFP that would identify crime trends, map problem areas, and forecast crime.

In 2015, PD signed with Advanced Public Safety (APS), but in 2016 it was acquired by Aptean which slowed down implementation. Further, vendor used a subcontractor, which also slowed down implementation. Note that payments is tied to milestones.

Milestones:

1) Data Source – transfer existing Computer Aided Dispatch (CAD) data to CrimeView Dashboard.
Completed in April 2016

2) Crimemapping.com – Gives residents ability to view crime activity in their own neighborhoods. *Implemented in June 2016.*

***** What has response been? How are residents using it? How are residents discovering this tool?**

3) CrimeView Advanced Reporting Module – allows to department to search CAD data. *Completed July 2016*

***** How are law enforcement officials using this? Any measurable results?**

4) Predictive Missions – machine learning crime forecasting software that uses crime type/occurrence, department priorities, time of day/week/year, crime recurrence, weather, and if school is in session. Forecasts are “randomized” to not repeatedly recommend one area to ensure fair policing throughout city. *Deployment scheduled for April 2018.*

***** Please say more about the randomizing. To what degree or using what method does randomizing happen? If completely random, then algorithm isn’t useful. If completely reliant on historical data, there might be biases - for example concerns around racial biases have been raised by activist across the country. How do we avoid these pitfalls in San Jose?**

II. Business Intelligence (Police & Fire)

Mayor’s 2015-2016 Budget Message highlighted the need for a Business Intelligence Enterprise Solution to increase efficiency and accuracy of response time data reporting.

Existing data systems were soloed and inadequate/hard to use. New solution should consolidate data and allow for easy reporting and analysis through interactive dashboards.

RFP released May 2016, and agreement signed with AgreeYa in January 2017.

Milestones:

Phase 1: Single data warehouse that accepts data from Computer Aided Dispatch (CAD) and Records Management Systems (RMS). *Completed August 2017*

Phase 2: Implement an ETL (extract, transform, load) Engine. *Completed September 2017*

Phase 3: Develop ERP (Enterprise Resource Planning) and ETL interfaces. *Completed CAD, Fire RMS, Fire staffing software in December 2017.* Next is to incorporate PD RMS.

*****Can we see these systems in action?**

*****Phase 2 has been completed for 6 months now – what results have we seen so far?**

III. Emergency Vehicle Preemption (EVP) Services at Signalized Intersections (Fire)

As per Mayor’s Budget Message, one-time funding of \$1.2M was in 2016-2017 Adopted Budget for EVP service at signalized intersections to improve response times. EVP currently enabled at 1/3 (or 336) of SJ’s signalized intersections.

Centralized EVP will integrate existing systems to provide EVP citywide. Existing systems include: Fire and PD centrally manage emergency response through one system, DOT centrally manages traffic signal ops over another system, and Fire has CAD and automated vehicle location system.

Go-live expected to be in July 2018.

***** What's the difference between current EVP-enabled intersections and the new ones we need to bring online?**

***** How might EVP capabilities on traffic signals interact with IoT deployment in future? (e.g., Could they be part of one device in the long-run?)**

IV. Fire Station Alerting System (Fire)

\$1.3M was allocated in 2016-2017 to upgrade fire station alerting system (hardware + software), which will automate some dispatching steps to reduce call processing times.

In Oct 2017, Council adopted resolution to authorize City Manager to negotiate and execute an agreement with US Digital Designs to replace Fire Station Alerting System.

Hardware was delivered in February 2018. Public Works is working on installation schedule, and IT is working on ensuring our network can support 24/7 operation (likely leveraging FirstNet, which gets priority on AT&T's consumer network).

***** What is expected roll-out for the new system?**

***** What is the expected staff time savings and resident impact (e.g., lives saved from faster response) from automating call processing steps?**

V. Mass Notification System (OEM)

OEM has increased mass notification capacity after Coyote Creek Flood, now able to use both two systems through Everbridge:

1) Alert Santa Clara County (Alert SCC): Requires opt-in, and 28k SJ residents have registered. Allows us to send email, text, voice in any language of residents' choosing.

2) Wireless Emergency Alert (WEA), aka "Amber Alert": Opt-out system that works on most smartphones. Trained operator identifies an area that needs to be warned, and Everbridge pushes a 90-character (soon 360-character) message to devices.

***** Is Alert SCC substantially better than Amber Alert? Or is it better for certain areas or populations (e.g., areas that have more Spanish or Vietnamese-only speakers). Either way, what is the plan for getting more people on Alert SCC? Anything we can do to help to promote it with our districts and through our channels?**

***** Any thoughts on using Facebook or Nextdoor as a way to augment our mass notification system? (As context, last year when Shireen, Kip, Kim Walesh, and others met with Facebook for a day-long brainstorming session there was some talk about maybe using Facebook as an alert system.)**